

## **ABSTRACT**

**Title:** THE MEASUREMENT OF THE REACTION TIME ON THE AUDITORY STIMULI CONCERNING THE PLAYERS OF GOALBALL.

**Objectives:** The main objective of this paper is the measurement of the reaction time on the auditory stimuli concerning the players of goalball. Another objective is to analyze acquired data and to compare measured values with those measured within the healthy population. The last objective is to compare health groups B1, B2, B3 and productive groups within the premiere league and the players of the goalball representation.

**Methods:** Measurement and analyzing of the acquired data's methods were used in this paper. The reactometer, earphones and the computer with the software that enables to automatically analyze measured data were the main tools used. Acquired data were displayed in the measured values' chart and within the graph on the axis displaying the course of measurement as well. The analyzing method was used to analyze the individual measured outcomes of the reaction time.

**Results:** The final part of this work was based on the three hypotheses. The first hypothesis assumed that the goalball players' reaction speed is faster than within the healthy population. This hypothesis was confirmed. According to measured outcome, from the sample of the healthy population there was not a person who reached the average goalball players' reaction speed. Average goalball players' reaction time was 0,041ms better than within the healthy population. The second hypothesis assumed that the people with the higher degree of sight disability's reaction speed would be faster than within the people with the lower degree of sight disability. This hypothesis was partly confirmed. People with complete sight disability, category B1, achieved faster reaction speed than the people within the category B2, B3. The difference between the categories B2, B3 was negligible. The third hypothesis was not confirmed. This hypothesis assumed that the people within the higher productive group, which means goalball representation, did not achieve faster reaction speed than the players of lower productive groups, which means premiere league

**Keywords:** goalball, sight disabled individual, reaction time